



Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72183

Entry Year 2019

Acreage: 1,481

County Crawford

Management Area: Camp Grayling

Revision Date: 2017-09-05

Stand Examiner: Dan Heckman

Legal Description:

T26NR4W Sections 16, 17, 18 Grayling Township

Identified Planning Goals:

This compartment is comprised of Hanson Reserve Lands which contain the following deed restrictions: 1) The lands are to be used as a permanent encampment and maneuvering ground for the military, 2) it is to serve as a game preserve for the breeding and protection of game, and 3) it is to serve as a forest reserve. The management goal is to maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while meeting the deed restrictions.

Soil and topography:

Topography in this compartment is mostly flat with some swales present throughout the Bear Swamp, mainly near the eastern reaches, in close proximity to Lake Margrethe. There are also numerous hills with some steep slopes at the southern edge of the compartment. One named hill, Thompson Hill, rises abruptly from the swamp interface, approximately 300' to its highest point which is actually just south of the compartment border. The dominant soil type present is Tawas-Lupton muck which makes up the entire Bear Swamp Area. This soil type is characterized by its extremely poorly drained nature. Management concerns include windthrow, seedling mortality and equipment limitation. The southern areas of the compartment transition away from the Bear Swamp through the Kinross-AuGres complex and eventually to the Graycalm-Rubicon Complex. The soils are rapid to somewhat excessively drained and have similar management concerns including equipment limitation on slopes, erosion on slopes and seedling mortality.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

The entire Bear Swamp area is publicly owned land and is part of the National Guard's Hanson Reserve. The Hanson Reserve is made of up two different types of ownership. Originally lands were given to the National Guard, DMA by Rasmus Hanson in 1913, with several deed restrictions as outlined under the management objective. One of these restrictions requires the area serve as a wildlife reserve which has been interpreted as no hunting. These restrictions have tasked the DNR is with managing the natural resources on these lands as long as management activities do not conflict with military needs. The remainder of the Hanson Refuge is comprised of lands given to the military by the DNR in which all of the same deed restrictions are to be followed except these lands are to remain open to hunting. Hence the Hanson Refuge is comprised of a patchwork of areas open and closed to hunting.

Unique Natural Features:

The Bear Swamp is quite a large uninterrupted swamp complex with many unique aspects. Bald Eagle, Loon, Osprey, Secretive Locust, and Massasauga Rattlesnakes have been observed within this compartment. There is potential for dusted skipper, Blandings turtle, goshawk, red shouldered hawk, Boreal bronchiorhynca, American bittern, wood turtle, Hill's thistle, Canda ricegrass, Prairie dropseed, Vasey's rush, Northern prostrate clubmoss, Alleghany plum, Houghton's goldenrod, and rough fescue. There is a high quality (AB rank) Northern wet-mesic prairie--Portage Creek Complex--to the northeast of the compartment. One of only three northern wet-mesic prairies in the state. The compartment also contains an intermittent wetland and Lake Margrethe to the northeast. There is also potential for calypso orchid, ram's head orchid, and limestone oak fern in conifer swamp.

Archeological, Historical, and Cultural Features:

There are no documented archeological concerns in this compartment.

Special Management Designations or Considerations:

This compartment contains a portion of the Portage Creek - Lake Margrethe Eastern Massasauga Rattlesnake CCA. This compartment is within the Hanson Reserve Lands which contain the following deed restrictions: 1) The lands are to be used as a permanent encampment and maneuvering ground for the military, 2) it is to serve as a game preserve for the breeding and protection of game, and 3) it is to serve as a forest reserve.

Watershed and Fisheries Considerations:

The Bear Swamp is integral to the maintenance of water quality in the Lake Margrethe and Manistee River watersheds. Numerous springs and creeks that feed both Portage Creek and Lake Margrethe originate within the boundaries of the Bear Swamp.

Wildlife Habitat Considerations:

Wildlife habitat within this compartment and the surrounding lands is abundant. The Bear Swamp is considered a major deer yard during the winter months, and the oak ridges to the south provide mast and cover throughout the year. An Eagles nest was found within this compartment. Therefore, any management activities in the area should take this into account.

The Hanson Refuge has experience high deer numbers and over browsing issues over the past several years, partly attributed to the inability to hunt and actively manage wildlife populations in the area. Winter deer mortality in the refuge has been an issue over the past several years. Wildlife staff are working with Military Environmental staff to address ways they can better manage the population in the refuge.

Mineral Resource and Development Concerns and/or Restrictions

Development within this compartment is nonexistent. The entire compartment is under state ownership and military activities are minimal. The Camp Grayling National Guard Base water filter beds lie within this compartment as does the Lake Margrethe Access Site and State Forest Campground. These two areas provide the only access points to the compartment. A sand/gravel pit is located three miles to the southeast, and there is good sand and gravel potential on the uplands in the southern end of the compartment. There may be oil and gas potential from Devonian carbonates within the compartment. However, the compartment, part of Camp Grayling, is not leased for oil and gas development (and is classified as non-leasable). There is no known metallic mineral potential in this part of the state. The state does not own the mineral rights beneath the compartment.

Vehicle Access:

As mentioned above, the roads to the access site at Lake Margrethe and the Filter Beds for the National Guard Base provide the only year-round access to this compartment. There is a small foot bridge that crosses Portage Creek to the north of the compartment and then follows the county line/survey line which provides foot travel access to the western portions of the Bear Swamp.

Survey Needs:

Survey work throughout this compartment is thorough. There are numerous established corners, although many are very difficult to access.

Recreational Facilities and Opportunities:

Lake Margrethe State Forest Campground and Boating Access Site is located in section 17 next to Euclid Ave. There are no designated recreational trails within the compartment. The southern edge of the compartment is near the boundary of Camp Grayling.

Fire Protection:

Additional Compartment Information:

The Bear Swamp offers a unique opportunity to access a large cedar swamp with abundant wildlife viewing possibilities.

The following reports from the Inventory are attached:

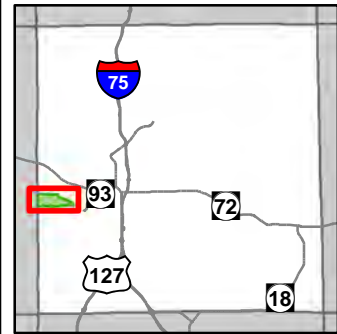
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

The following information is displayed, where pertinent, on the attached compartment maps:

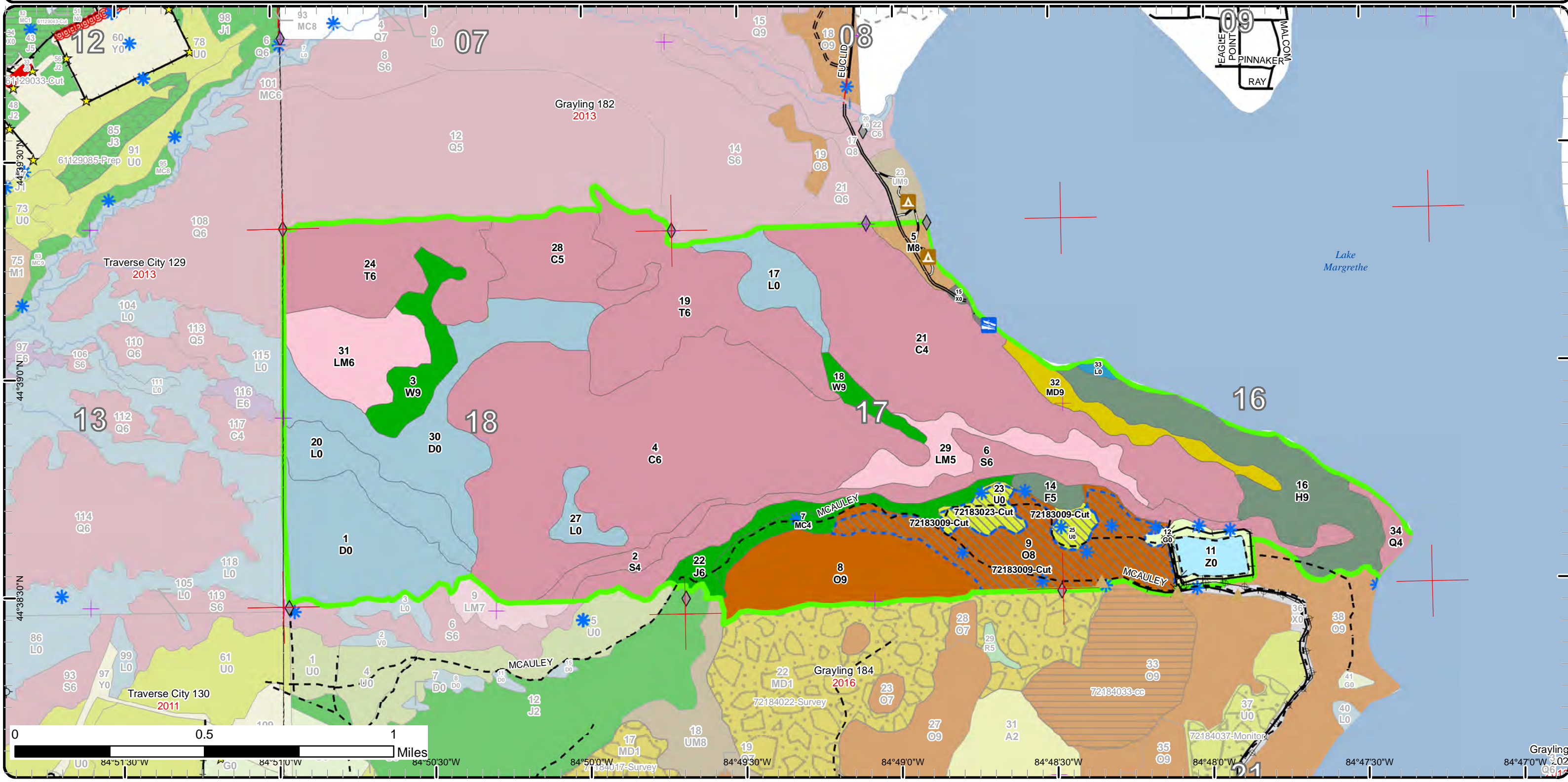
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 183
 T26N R04W 16-18
 County: Crawford
 Unit: Grayling
 Mgmt Area: Camp Grayling
 YOE: 2019
 Acres: 1,481 GIS Calculated
 Examiner: Dan Heckman
 Map Revised: 7/30/2018
 Map Phase: Post-Review

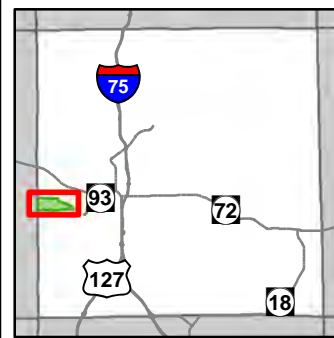


- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- == DNR - Primary Forest Road
- == DNR - Secondary Forest Road
- == DNR - Forest Access Route
- Federal / State / County - Paved Road
- - Federal / State - Dirt / Gravel Road
- - County - Dirt Road (Seasonal)
- ▲ Berms
- ⚓ Boating Access Site
- ⚓ Culvert
- ▲ Campground
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- ⊕ Powerline
- ⬡ Compartment Boundary
- ⬡ Treatments with Site Conditions
- ⬡ Other Harvest - See Comments
- 411 - Northern Hardwood
- 412 - Oak Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland
- Lakes
- ★ Camp Grayling Monitoring Wells
- ★ Camp Grayling Safety Marker
- ⊙ Camp Grayling Firing Point
- ⊗ Camp Grayling Gates
- Camp Grayling Fence

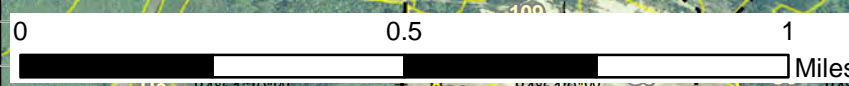
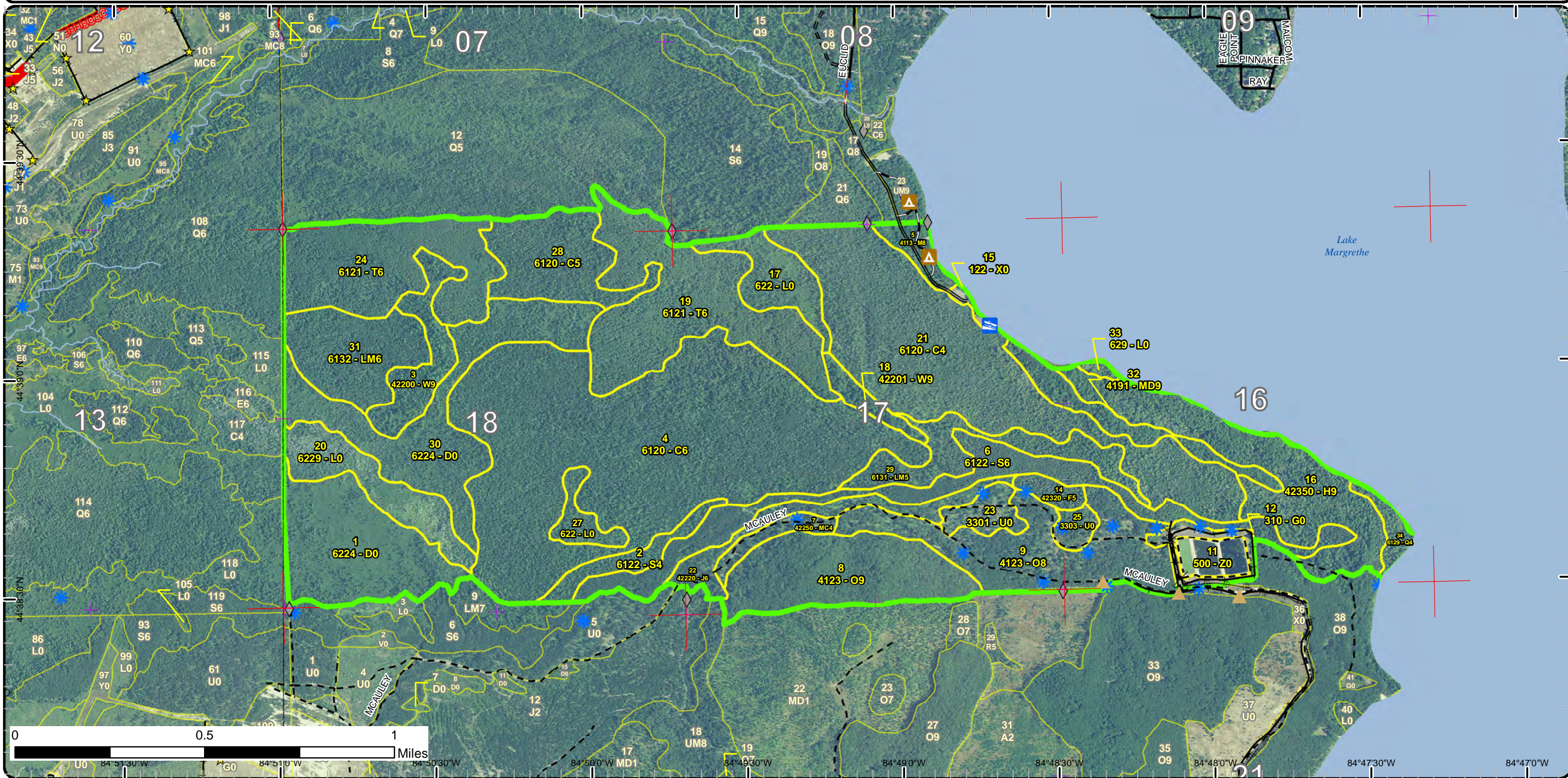


Stand Boundary Map

Compartment: 183
 T26N R04W 16-18
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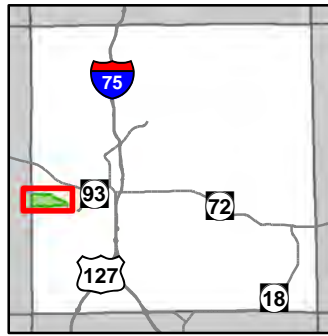
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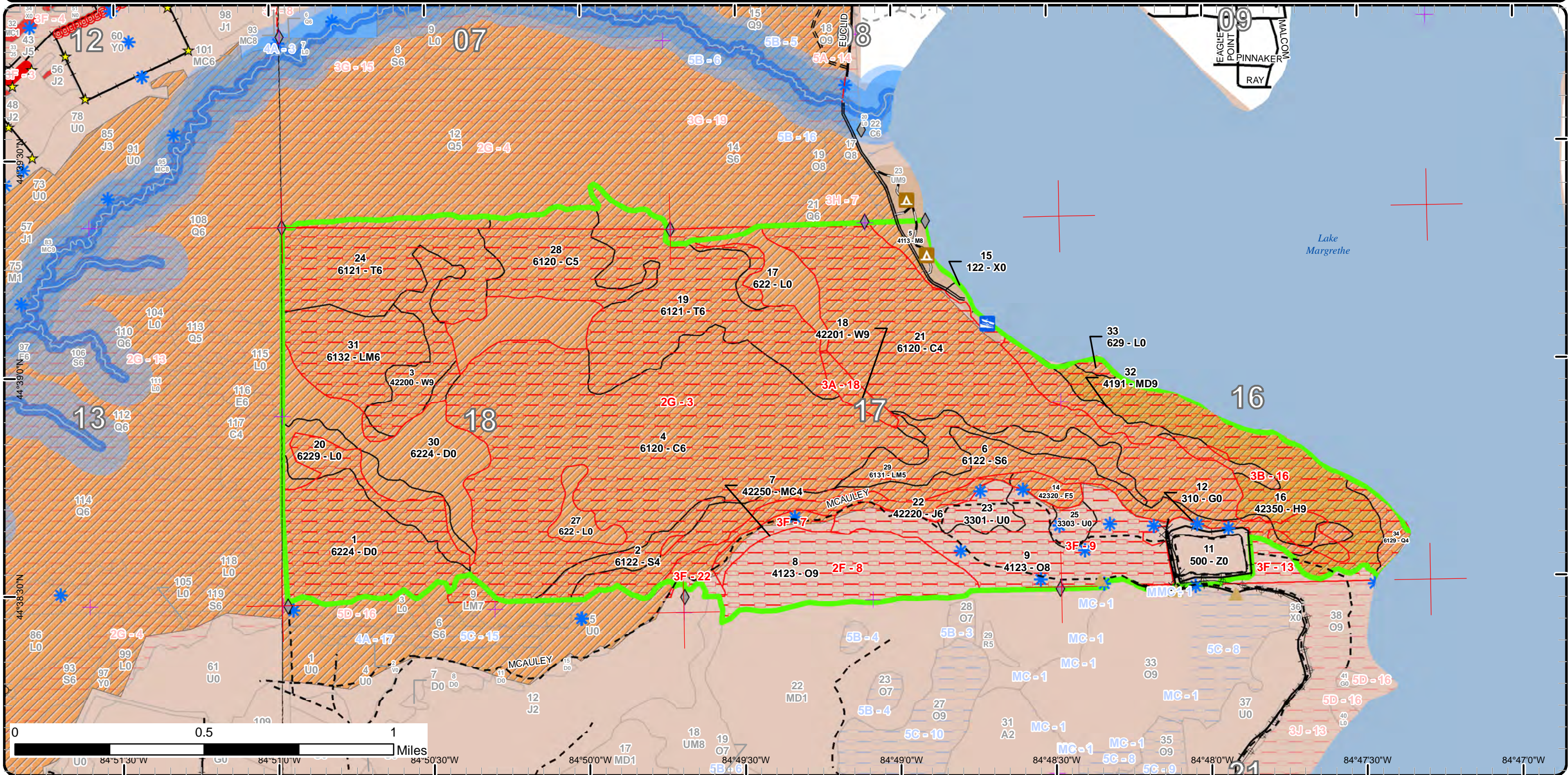
0 0.5 1 Miles
 84°51'30"W 84°51'0"W 84°50'30"W 84°50'0"W 84°49'30"W 84°49'0"W 84°48'30"W 84°48'0"W 84°47'30"W 84°47'0"W

Special Conservation Areas & Site Conditions Map

Compartment: 183
 T26N R04W 16-18
 County: Crawford
 Unit: Grayling
 Mgmt Area: Camp Grayling
 YOE: 2019
 Acres: 1,481 GIS Calculated
 Examiner: Dan Heckman
 Map Revised: 7/30/2018
 Map Phase: Post-Review



- Miris Corners
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- Berms
- ▲ Boating Access Site
- ▽ Culvert
- ▲ Campground
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- + Powerline
- Compartment Boundary
- Unavailable
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 3A: Conservation Values incompatible with harvest at this time
- 3F: Military easement / lease
- Stand Boundaries
- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Eastern Massasauga Managed Land
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands
- State Forest Campground
- Possible Type 2 Old Growth
- ★ Camp Grayling Monitoring Wells
- ★ Camp Grayling Safety Marker
- ⊙ Camp Grayling Firing Point
- ✕ Camp Grayling Gates
- Camp Grayling Fence



Report 1 – Total Acres by Cover Type and Age Class

Grayling Mgt. Unit

Compartment 183 Year of Entry 2019

Dan Heckman : Examiner



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	516	0	0	0	0	0	516
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	82
Herbaceous Openland	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Jack Pine	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	24
Low-Density Trees	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Lowland Conifers	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	8
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	82	0	0	0	0	0	82
Lowland Shrub	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	15	65	0	0	0	0	0	0	79
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	22
Natural Mixed Pines	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
Oak	0	0	0	0	0	0	0	0	0	79	70	0	0	0	0	0	0	0	149
Tamarack	0	0	0	0	0	0	0	0	0	0	180	0	0	0	0	0	0	0	180
Treed Bog	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155
Upland Spruce/Fir	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Water	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0	0	37
Total	274	0	0	0	10	0	0	32	0	88	265	87	609	0	0	37	0	82	1481



Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2019

Acres of Harvest

Compartment 183

Total Compartment Acres: 1,481

Commercial Harvest -
 Harvests with Site Condition - 92
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Low-Density Trees	0	0	0	0	0	0	0	18		18
Oak	0	0	0	0	0	0	0	75		75
Total	0	0	0	0	0	0	0	92		92

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	92	0	0	0	0	0	0	0		92
Total	92	0	0	0	0	0	0	0		92



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
9 72183009-Cut	74.5	4123 - Red Oak	Sawtimber Medium	88	51-80	Harvest	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary

Habitat Cut: No **Site Condition: Military Lease/Easement**

Prescription Harvest, if requested by the Military, to facilitate improvements to the water treatment spray fields.

Specs:

Next Step

Treatments:

Acceptable Note adjacent EMR Managed Lands poly to the north, and apply EMR CCAA Management Strategies for Unmanaged Lands.

Regen:

Other

Comment:

Proposed Start Date: 01/01/2018

23 72183023-Cut	11.6	3301 - Low Density Deciduous Trees	Nonstocked		Unspecified	Harvest	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No **Site Condition: Military Lease/Easement**

Prescription Harvest, if requested by the Military, to facilitate improvements to the water treatment spray fields.

Specs:

Next Step

Treatments:

Acceptable Note adjacent EMR Managed Lands poly to the north, and apply EMR CCAA Management Strategies for Unmanaged Lands.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

25 72183025-Cut	6.2	3303 - Mixed Low Density Trees	Nonstocked		Unspecified	Harvest	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No **Site Condition: Military Lease/Easement**

Prescription Harvest, if requested by the Military, to facilitate improvements to the water treatment spray fields.

Specs:

Next Step

Treatments:

Acceptable Note adjacent EMR Managed Lands poly to the north, and apply EMR CCAA Management Strategies for Unmanaged Lands.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

Total Treatment Acreage Proposed: 92.3

Report 4 – Site Conditions

Grayling Mgt. Unit
Dan Heckman : Examiner

Compartment: 183
Year of Entry: 2019

Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available	Dominant Site Conditions	Dominant Site Conditions				
		With Condition				2F	2G	3A	3B	3F
515	0	0		515	Cedar		515		0	
82	0	0		81	Hemlock		7		75	
11	11	0		0	Herbaceous Openland					
24	0	0		24	Jack Pine					24
19	0	0		19	Low-Density Trees					19
11	0	0		11	Lowland Conifers				11	
82	0	0		82	Lowland Mixed Forest		82			
75	46	0		29	Lowland Shrub		27		2	
80	1	0		79	Lowland Spruce/Fir		74		4	0
22	0	0		22	Mixed Upland Deciduous				22	
10	0	0		10	Natural Mixed Pines					10
11	11	0		0	Northern Hardwood					
149	1	0		147	Oak	70				78
180	0	0		180	Tamarack		180			
155	81	0		74	Treed Bog		74			
7	0	0		7	Upland Spruce/Fir					7
2	2	0		0	Urban					
12	12	0		0	Water					
37	0	0		37	White Pine		30	8		
1,484	166			1,318	Total Forested Acres	70	989	8	114	138
	11%			89%	Relative Percent					

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	974	3B: Threatened, endangered, and special concern species	Unspecified	Unspecified	Unspecified
Comments:							
Portage Creek - Lake Margrethe Eastern Massasauga Rattlesnake Managed Area CCAA							

Report 4 – Site Conditions

Grayling Mgt. Unit
Dan Heckman : Examiner

Compartment: 183
Year of Entry: 2019

7	Unavailable	3F: Military easement / lease	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	2F: Too steep	70	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	3F: Military easement / lease	97	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	3F: Military easement / lease	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	3B: Threatened, endangered, and special concern species	114	3F: Military easement / lease	3L: Other wildlife concerns	Unspecified	Unspecified
Comments:							
18	Unavailable	3A: Conservation Values incompatible with harvest at this time	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Grayling Mgt. Unit
Dan Heckman : Examiner

Compartment: 183
Year of Entry: 2019

22	Unavailable	3F: Military easement / lease	32	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments:							



Report 5 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	Proposed SCA	82
Comments				
Unique stand for NLP with some very large diameter hemlock and white pine present in the stand. Nominate for type 2 old growth.				



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6122 - Black Spruce	Poletimber Poor	14.5	95	51-80	Spruce stand scattered at lower density. Wet ground with leatherleaf and occasional blueberry in understory. Stocking is denser in south and west portions of stand. Minimal wildlife activity within stand, some nests in spruce thickets and browse on hardwood species. (old comment) BEAR SWAMP AREA
3	42200 - Natural White Pine	Sawtimber Well	28.0	147	81-110	OPIC - FMD: Isolated stand of large, old white pine. Some cedar, balsam and spruce mixed throughout, though not much. A couple oak trees present as well, with some regen present. Lot's of squirrel activity and possibly a pine marten seen climbing white pine in center of stand. (old comment) BEAR SWAMP AREA
4	6120 - Lowland Cedar	Poletimber Well	301.7	114	111-140	OPIC - FMD: This stand makes up the bulk of the Bear Swamp within this compartment. Cedar is in good shape and is dense in many areas. Also some open areas throughout stand. There are scattered white birch with some developing into large standing snags. Also some yellow birch scattered around stand. Lot's of DWD, snags and tons of wildlife activity throughout stand. Open areas have thick brush within them. At eastern edge of stand, near public access, there are a great deal of black ash trees. Some of these trees have been gridded and set up as trap trees for EAB reasearch. (old comment) BEAR SWAMP AREA
5	4113 - R.Maple, Conifer	Sawtimber Medium	10.8	114	81-110	2007 Comments: OPIC - FMD: Access site and lake margrethe campground. Some erosion exists around campsite and is being dealt with as time allows. Overall, campground in good shape in terms of timber quality, safety concerns, hazard trees, etc. 1997 Comments: LAKE MARGRETHE CAMPGROUND AND PUBLIC ACCESS SITE
6	6122 - Black Spruce	Poletimber Well	65.2	102	111-140	Long, narrow stand providing added seclusion to bear swamp. Stand lies at edge of area where upland/lowland intersect. Spruce is in good shape, growing slowly but well. There is some minimal blow down in areas but overall, stand is in good shape. There are some wet areas throughout stand with some hummocks supporting jack pine and white pine. (old comment) BEAR SAWMP AREA BIGGER TREES ON THE EAST END OF THE STAND
7	42250 - Pine, Oak	Poletimber Poor	9.9	30	1-50	OPIC - FMD: Open/sparse stand with J2/U2 dominating. Picked up enough jack pine during field work to type stand as a J4, barely. Lot's of brush at edges with some scattered oak regen throughout. (no old comment)
8	4123 - Red Oak	Sawtimber Well	69.7	92	141-170	OPIC - FMD: Fair quality oak stand, some moderate topographical changes throughout stand area. (hilly) Some rot and dead tops, areas of regen in openings. WP scattered along with some large red pine. White pine is thick in many understory areas.
9	4123 - Red Oak	Sawtimber Medium	79.0	88	51-80	OPIC - FMD: Overall, somewhat poor quality stand. Oak is limby with lot's of rot, sloughing bark, dead branches at low points of tree, etc. Some openings with JP?WP present. Areas of oak regen throughout stand that has been browsed and is of poor quality. (old comment) FENCE AROUND MOST OF THIS STAND CONNECTED TO NG WATER FILTER BEDS



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	42320 - Upland Spruce	Poletimber Medium	7.1	67	51-80	Variable Black Spruce stand with some areas dense, others not. Not much understory, what is there is cherry and spruce. Scattered fir/spruce in understory.
16	42350 - Upland Hemlock	Sawtimber Well	81.8	146	171-200	Unique stand for NLP with some very large diameter hemlock and white pine present in the stand. There is evidence of some harvesting around the turn of the century but stand has a good representation of old growth characteristics including gap dynamics, downed woody debris, standing snags, and un-even aged condition. Largest diameters were in the low 30" classes on WP and upper 20's on hemlock.
18	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	9.3	147	81-110	OPIC - FMD: There are large white pine throughout bear swamp, however slightly higher ground in this area makes for different species makeup that is heavier to white pine. The white pine within this stand are quite large and very tall. Some stick nests exist a couple trees and there is a great deal of wildlife activity throughout the stand. Bobcat tracks were observed after a fresh snow, traversing this stand from E to W. BEAR SWAMP AREA
19	6121 - Tamarack	Poletimber Well	101.1	98	51-80	OPIC - FMD: Tamarack stand at NW portion of bear swamp. Tamarack become more frequent as you move up towards Portage Creek, although they are found throughout stand 4 in low numbers. (old comment) BEAR SWAMP AREA
21	6120 - Lowland Cedar	Poletimber Poor	166.7	114	1-50	OPIC - FMD: This stand makes up the bulk of the Bear Swamp within this compartment. Cedar is in good shape and is dense in many areas. Also some open areas throughout stand. There are scattered white birch with some developing into large standing snags. Also some yellow birch scattered around stand. Lot's of DWD, snags and tons of wildlife activity throughout stand. Open areas have thick brush within them. At eastern edge of stand, near public access, there are a great deal of black ash trees. Some of these trees have been gridded and set up as trap trees for EAB research. (old comment) BEAR SWAMP AREA
22	42220 - Natural Jack Pine	Poletimber Well	24.5	67	81-110	Variable jack pine stand with some areas dense, others not. Not much understory, what is there is cherry (M1), J1 and spruce. Some areas of J3 established in openings. Scattered fir/spruce in understory. There is a small memorial at the base of a tree in this stand.
24	6121 - Tamarack	Poletimber Well	78.9	95	51-80	OPIC - FMD: Tamarack stand at NW portion of bear swamp. (old comment) BEAR SWAMP AREA
28	6120 - Lowland Cedar	Poletimber Medium	46.9	114	111-140	OPIC - FMD: This stand makes up the bulk of the Bear Swamp within this compartment. Cedar is in good shape and is dense in many areas. Also some open areas throughout stand. There are scattered white birch with some developing into large standing snags. Also some yellow birch scattered around stand. Lot's of DWD, snags and tons of wildlife activity throughout stand. Open areas have thick brush within them. At eastern edge of stand, near public access, there are a great deal of black ash trees. Some of these trees have been gridded and set up as trap trees for EAB research. (old comment) BEAR SWAMP AREA

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Grayling Mgt. Unit

Report 7 – Forested Stands

Compartment: 183
Year of Entry: 2019

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Medium	35.1	114	51-80	
31	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	46.6	114	81-110	Mix of tamarack and cedar, tag alder understory. (old comment) BEAR SWAMP AREA
32	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	21.7	109	111-140	Stand split from parent stand because of species composition and upland dominance. Stand is made up of higher ground and appears to be an old lake shore or wooded dune. Red Pine dominates the western part of the stand, while Oak is more prevalent to the central and eastern parts of the stand with WP mixed throughout in all size classes.
34	6129 - Mixed Coniferous Lowland Forest	Poletimber Poor	8.5	81	1-50	Lots of course woody debris from snags that have blown over...



Stand	Cover Type	Acres	Managed Site	General Comments:
1	6224 - Treed Bog	71.9	No	OPIC - FMD: Tamarack stand with spruce scattered at low density. Wet ground with leatherleaf and occasional blueberry in understory. Stocking is denser in south and west portions of stand. Minimal wildlife activity within stand, some nests in spruce thickets and browse on hardwood species. (old comment) BEAR SWAMP AREA
11	500 - Water	11.7	No	OPIC - FMD: WATER FILTER BEDS FOR N.G. CAMP
12	310 - Herbaceous Openland	11.0	No	OPIC - FMD: WATER FILTER BEDS FOR N.G. CAMP
15	122 - Road/Parking Lot	2.4	No	Boating Access site adjacent to the Lake Margrethe Campground.
17	622 - Lowland Shrub	25.6	No	OPIC - FMD: Small stand at north end of bear swamp. Separated because of low stocking and slightly different species makeup. Viewed stand from southern edge, northern portions of stand 18. Stand is thick with tag alder and lowland brush. Lot's of wildlife activity. (old comment) BEAR SWAMP AREA
20	6229 - Mixed lowland shrub	36.2	No	
23	3301 - Low Density Deciduous Tree	12.3	No	Stand was expanded to the south to include areas where oak has died... converting to a non forested stand. OPIC - FMD: U2 stand with mixture of JP and cherry in openings. Some larger JP and oak but not enough merchantable volume to justify typing as a mature stand in either species. (old comment) SOME O7 J1
25	3303 - Mixed Low Density Trees	6.8	No	OPIC - FMD: U2 stand with mixture of JP and cherry in openings. Some larger JP and oak but not enough merchantable volume to justify typing as a mature stand in either species. (old comment) SOME O7 J1
27	622 - Lowland Shrub	11.1	No	Low density pocket within a dense cedar stand. Scattered cedar, white pine, and the occasional red maple. Stand is mostly tag alder.
30	6224 - Treed Bog	83.0	No	OPIC - FMD: Tamarack stand with spruce scattered at low density. Wet ground with leatherleaf and occasional blueberry in understory. Stocking is denser in south and west portions of stand. Minimal wildlife activity within stand, some nests in spruce thickets and browse on hardwood species. (old comment) BEAR SWAMP AREA
33	629 - Mixed non-forested wetland	2.2	No	